

PATENT APPLICATION

AMENDMENT UNDER 37 C.F.R. §1.116
U.S. Application No. 08/833,511

REMARKS

Claims 1-7, 9, 11-15 and 25-32 are all the claims pending in this application and stand rejected finally under 35 U.S.C. § 103(a). In view of the foregoing amendments and following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections. Applicants note that, since the claims as amended clearly distinguish over the prior art, the amendments properly are enterable, and accordingly Applicants respectfully request entry.

Claim 1 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Shibata et al. (USP 5,365,265) in view of Larson (USP 5,821,987) and Hirano et al. (USP 5,396,554). Shibata is directed to a multi-point teleconferencing system having audio and visual capture devices of a participant in a conference. Larson is directed to a video phone having a unitary housing. Hirano is directed to a multi-channel adaptive echo canceler. The Examiner has rejected claim 1 stating it would have been obvious to a skilled artisan to modify Shibata's teleconferencing system with Larson's unitary housing having Hirano's multi-channel adaptive echo canceler.

Shibata describes a multipoint teleconferencing system in which users are connected to each other over an ISDN network. Each user has a video input device 200 such as a camera and a video codec 201 for converting the analog video signal to a digital signal. The digital video signal is then connected to the ISDN network with 2B+D interfaces (a 2B+D ISDN interface is limited to 128 kbps). *See*, Shibata, col. 3, lines 53-56. Larson describes a videophone that "digitizes images and employs compression and encoding techniques to process the digital images into digital data to be formatted for transmission." *See*, Larson, col. 6, lines 6-9. Further, Larson acknowledges that transmission rates up to 768 kbps produce images having blur and loss of audio-video

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synchronization. *See*, Larson, col. 6, line 50-54. The network bandwidth is just not sufficient to provide TV quality images that are normally transmitted in analog format at 6.5 MHz. Neither Shibata, nor Larson, nor Hirano teaches or even remotely suggests production of a TV quality image.

By contrast, the present invention uses analog audio and video networking to provide TV quality video of conference participants to overcome the limitations of digital video image transmission. “[T]his embodiment uses analog networking for audio and video.....” *See*, Application, page 11, lines 6-7. By using analog video transmission over a network, the present invention provides what the cited references cannot, namely, images at full motion video having TV quality frame rate, resolution, and color.

Accordingly, Applicants amend independent claim 1 to add the limitation of providing images at full motion video having TV quality frame rate, resolution, and color. None of the references cited by the Examiner teaches or suggests this limitation, and this amendment therefore overcomes the Examiner’s rejection.

Regarding independent claim 7, Applicants also amend claim 7 to add the limitation of providing TV quality signals and images. Applicants respectfully submit the Examiner’s rejection is overcome based at least on the arguments presented above.

Claims 2-6, 9, 11-15 and 25-32 are dependent claims, and Applicants respectfully submit that they are patentable for at least the same reasons presented above.


Pursuant to the foregoing, Applicants respectfully submit that all of the pending claims 1-7, 9, 11-15, and 25-32 are patentable.

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The Examiner's rejections having been overcome, Applicants submit that the subject application is in condition for allowance. The Examiner is respectfully requested to contact the undersigned at the telephone number listed below to discuss other changes deemed necessary. Applicants hereby petition for any extension of time which may be required to maintain the pendency of this case, and any required fee for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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PATENT TRADEMARK OFFICE

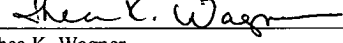
Date: September 25, 2001

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Date: September 25, 2001

Signed: 
Thea K. Wagner

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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Amended) A teleconferencing apparatus comprising:
a unitary housing including
 - (a) audio and video capture devices
 - (ii) for capturing video images at full motion video having TV quality frame rate, resolution, and color, and spoken audio
 - (1) of a participant in a videoconference;
 - (b) a monitor
 - (i) for displaying visual images at full motion video having TV quality frame rate, resolution, and color
 - (1) associated with at least one participant;
 - (c) audio reproduction devices; and
 - (d) an adaptive acoustic echo canceler,wherein the audio capture and reproduction devices are integrated into the unitary housing in a fixed spatial relationship with respect to each other and cooperate with the adaptive acoustic echo canceler to reduce echo during the reproduction of the audio.
7. (Amended) A teleconferencing system for conducting a teleconference among a plurality of participants, comprising:
 - (a) a plurality of workstations each including
 - (i) a unitary housing having

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- (1) a first monitor for displaying participant video images at full motion video having TV quality frame rate, resolution, and color,
 - (2) audio and video capture devices for capturing video at full motion video having TV quality frame rate, resolution, and color and spoken audio of the participants,
 - (3) audio reproduction devices,
 - (4) an adaptive acoustic echo canceler,
wherein the audio capture and reproduction devices are integrated into the unitary housing in a fixed spatial relationship with respect to each other and cooperate with the adaptive acoustic echo canceler to reduce echo during the reproduction of the audio, and
a second monitor;
- (b) a data path
 - (i) along which data can be
 - (1) shared among a plurality of the participants and
 - (2) displayed interactively on at least two [secured] workstations' monitors; and
- (c) an audio and video path,
 - (i) for carrying audio and video signals at full motion video having TV quality frame rate, resolution, and color
 - (1) representing video images and spoken audio of the participants,
 - (2) among the workstations
 - (3) for reproduction on at least one monitor associated with the workstation of one of the participants.